Information Flow

Process

P

FIGURE 1
Diagram of the System

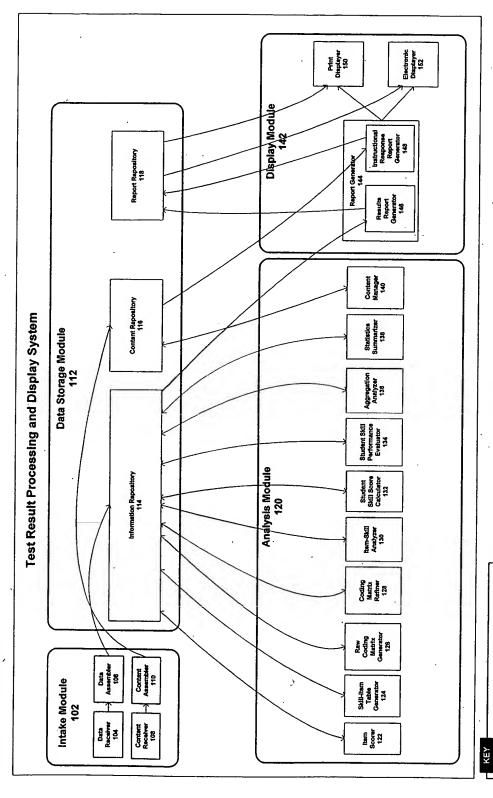


FIGURE 2
Technical Components of the System

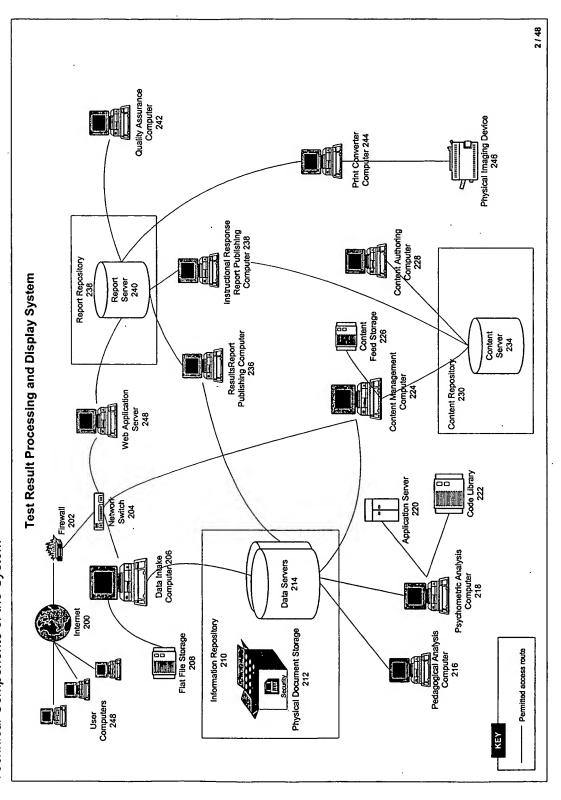
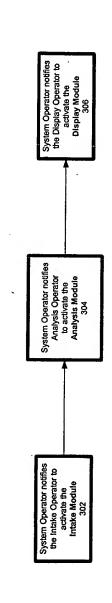


FIGURE 3 Flowchart of the System



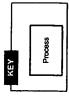


FIGURE 4

Diagram of the Operation Components of the Intake Module

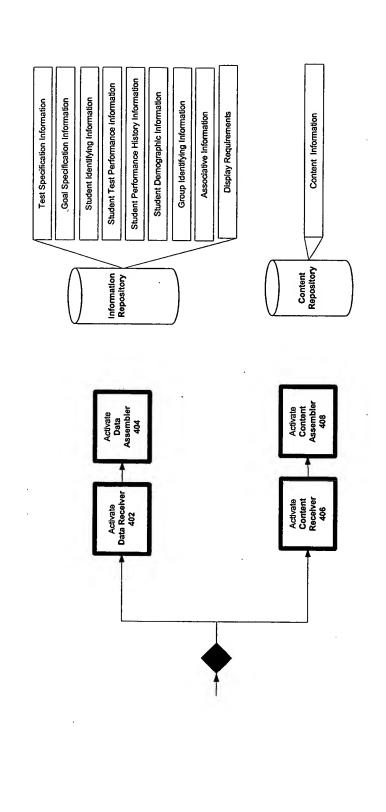




FIGURE 5

Diagram of the Data Storage Module

Content Repository 504	Subject overviews 566 Skills definitions 568	The state of the s	Classicom acuviues for teaching Skills 5/0	Samula mobileme in Skille 574		etc.			Report Repository 506		Results Reports 576	Instructional Response Reports 578	Print Templates 580	Electronic Templates 582  Electronic Document Structures for Results Reports 584  Electronic Document Structures for Instructional Response Reports 586	5148
	Analysis Module	Student Skill Scores* 548	Obtained Skill Scores for each Skill* 550	Student Evaluation Statements by Skill 552	Group Skill Scores 554	Group Evaluation Statements by Skill 556	Pedagogical Constraints 558	Summary Statistics 562							
Information Repository 502	Information Generated by Analysis Module	Item Scores for each Student* 526	Skill Sets* 528	Skill Organizations* 530	Skiil-Item Tables* 532	Items Assessing a Skill* 534	Skill-Specific Item Scores for each Student* 536	Item Score Arrays for each Student* 538	Fall-off Ratios* 540	Raw Coding Matrices* 542	Refined Coding Matrices* 544	Quality Rating Information for Refined Coding Matrices* 546		• = If required	
	Externally Provided Information	Test Specification Information 508	Goal Specification Information 510	Student Identifying Information 512	Student Test Performance Information 514	Student Performance History Information 516	Student Demographic Information 518	User Information 519	Group Identifying Information 520	Associative Information 522	Display Requirements 524				

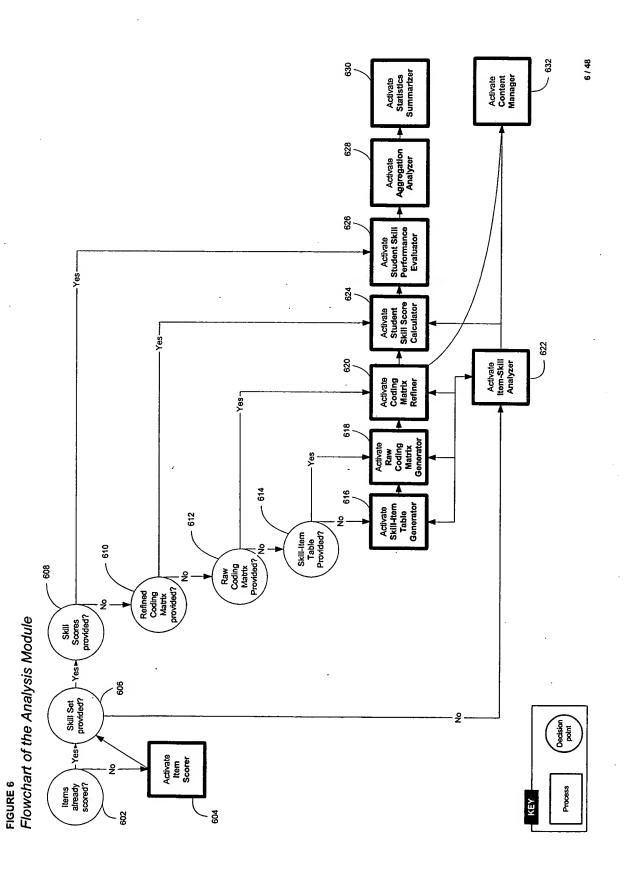
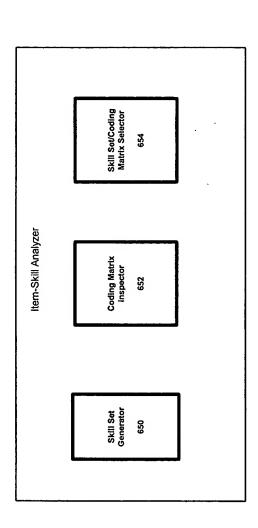
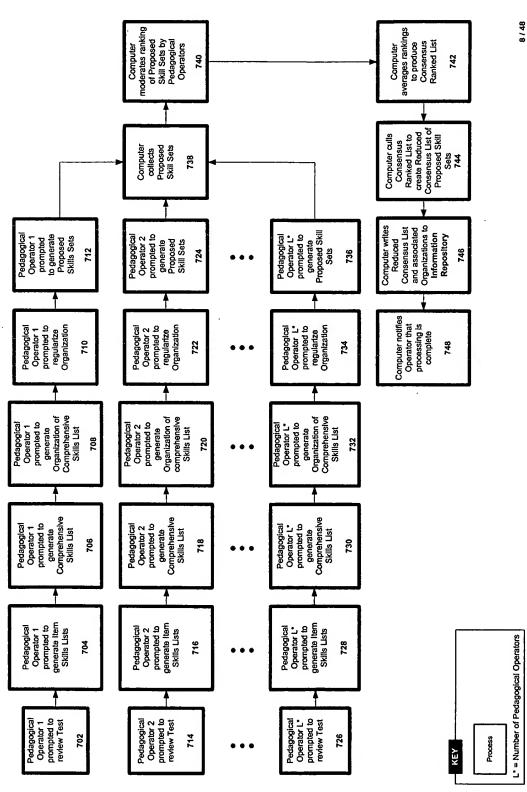


FIGURE 6A Block Diagram of Item-Skill Analyzer



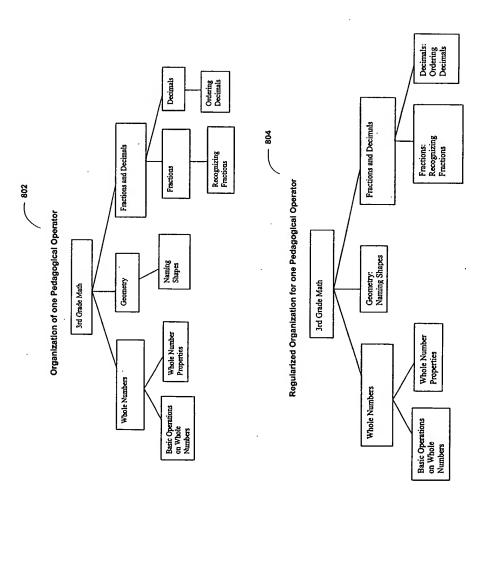


Flowchart of the Skill Set Generator FIGURE 7



i

FIGURE 8
Diagram of Skill Organizations



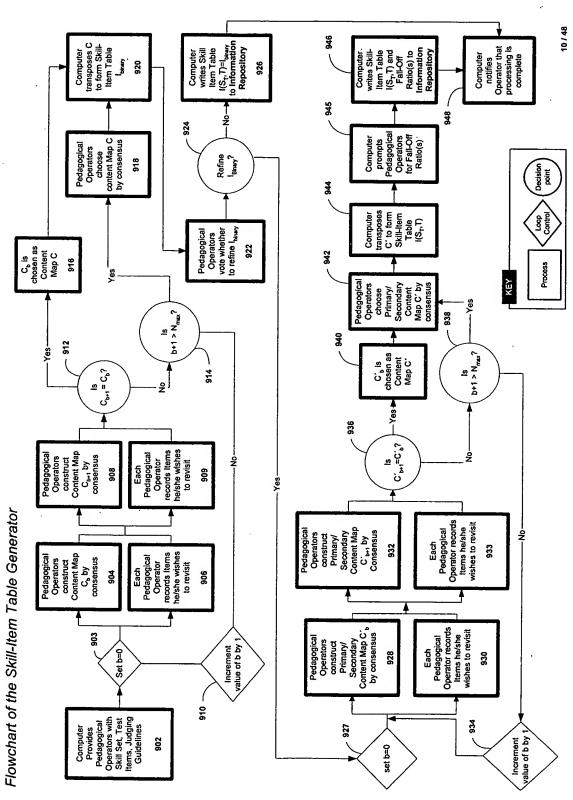
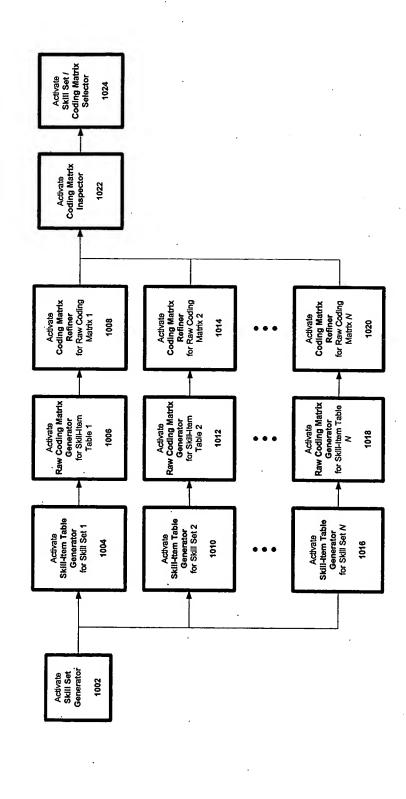


FIGURE 9

FIGURE 10 Flowchart of the Item-Skill Analyzer



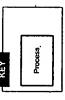
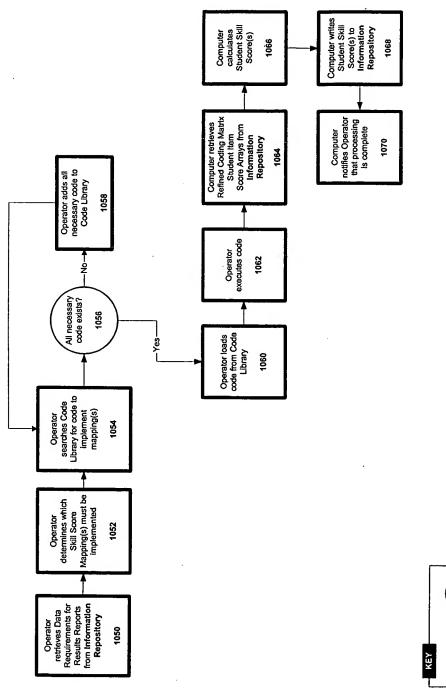


FIGURE 10A
Flowchart of the Student Skill Score Calculator



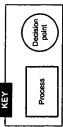
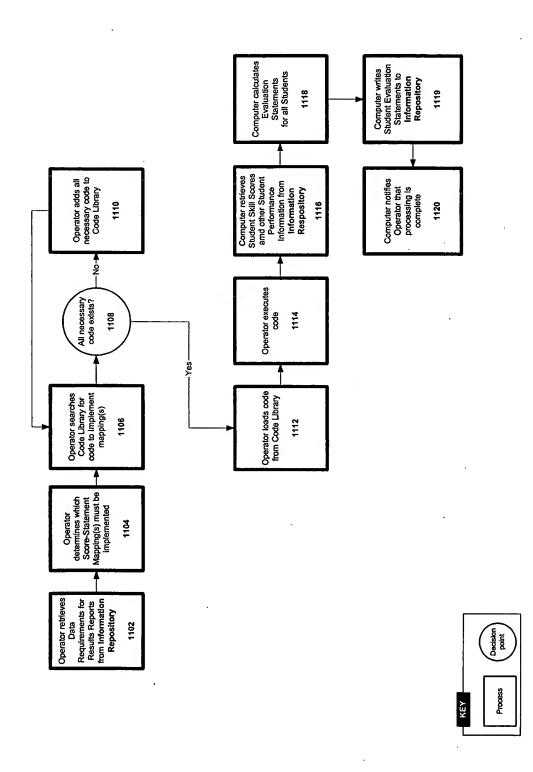


FIGURE 11
Flowchart of the Student Skill Performance Evaluator



Flowchart of Criterion Mapping Execution FIGURE 12

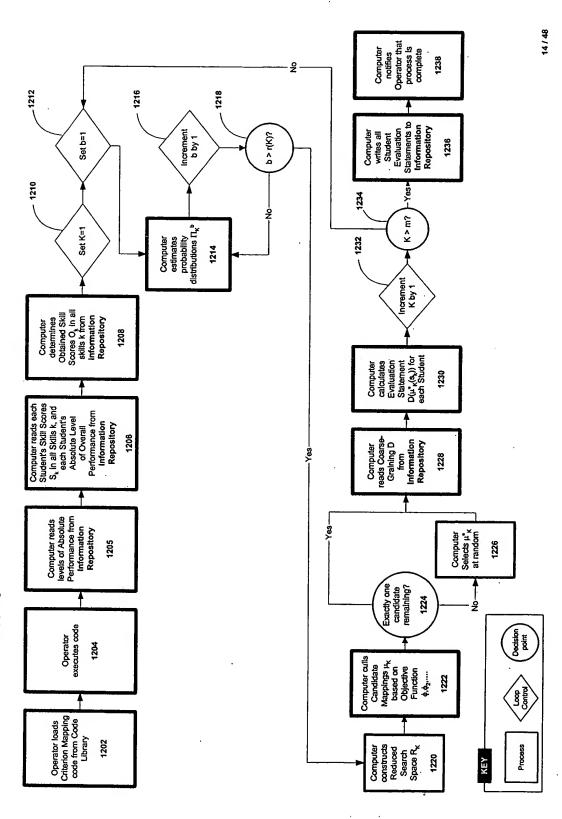
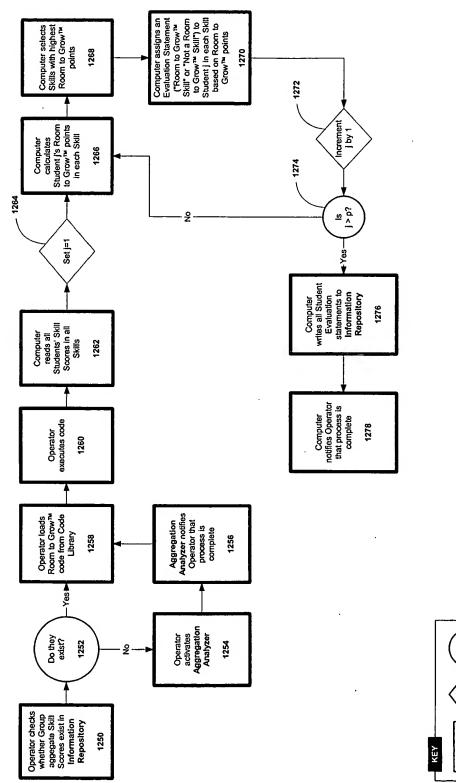
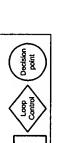


FIGURE 12A Flowchart of a Room to Grow™ Prioritization





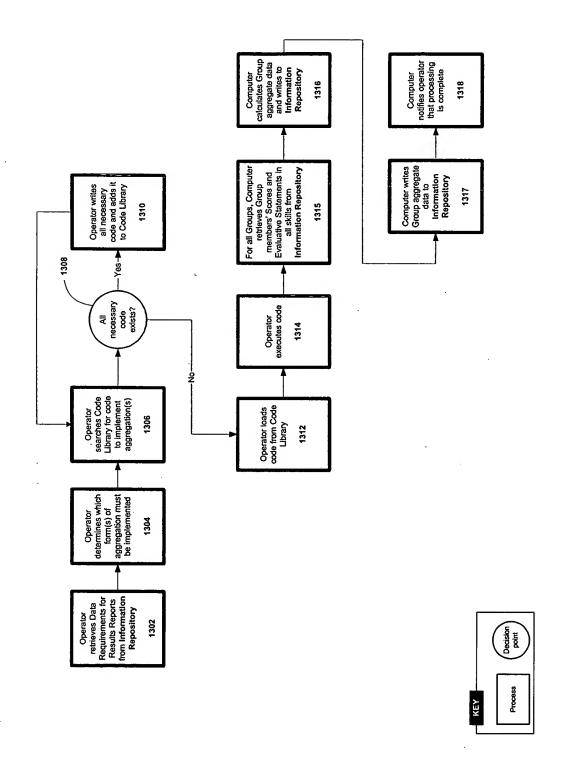
Process

15/48

FIGURE 13
Flowchart of the Aggregation Analyzer

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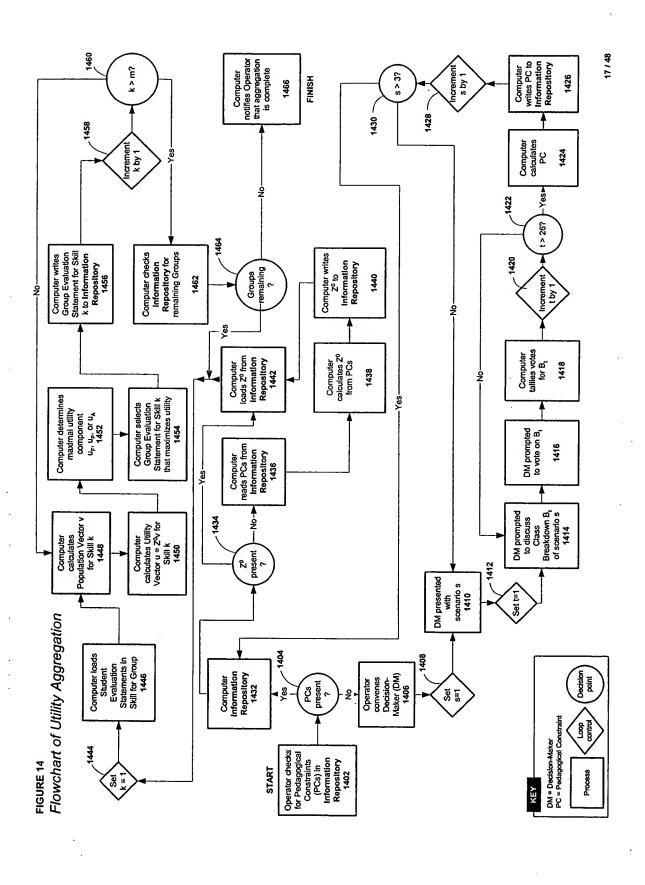


FIGURE 14A Class Breakdowns for First Scenario

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FIGURE 14B
Class Breakdowns for Second Scenario

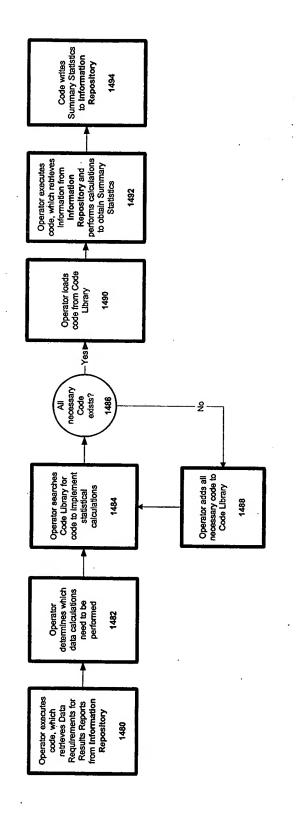
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FIGURE 14C Class Breakdowns for Third Scenario

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FIGURE 14D
Flowchart of the Statistics Summarizer



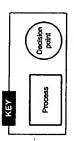
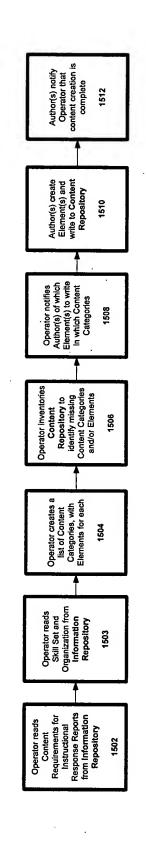


FIGURE 15
Flowchart of the Content Manager





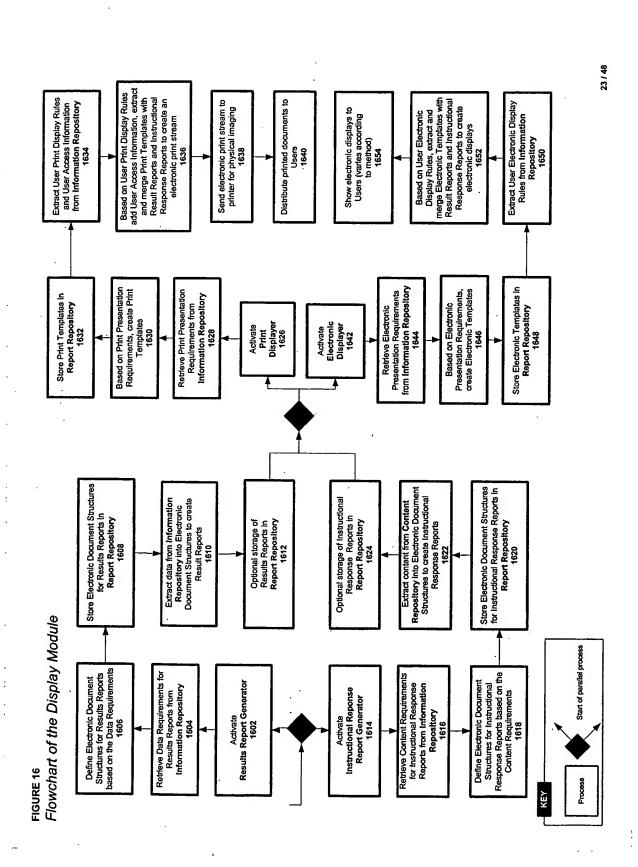
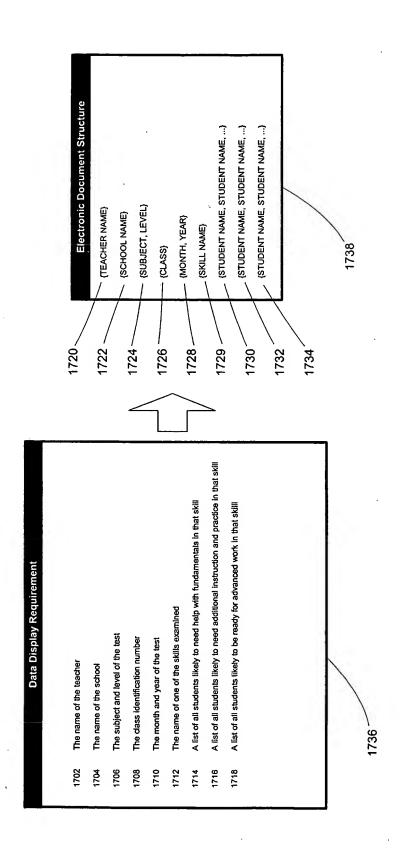


FIGURE 17
Diagrams of a Data Display Requirement and an Electronic Document Structure



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ctice> <introduction>

> If your students need some additional instruction and practice, you can try some of the activity ideas listed below.

</introduction>

<activity>

<description>

Ask students to think of a few situations in which they might want to add the same number over and over. Some ideas to get them started might be:

- <list>

<!istItem>counting the total number of wheels in a group of 8 cars</istItem> ttem>counting the total number of keys on 5 calculators of the same type</listItem>

tistItem>counting the total number of pencils in 10 boxes of pencils

Then have them make up a word problem to go with each situation, and solve a few of these problems.

</description>

</list>

</activity> - <activity>

- <description>

Ask students to think of a few situations in which they might count things in arrays. Here are some arrays they might use.

<listItem>seats on a bus</listItem>

<listItem>windows on a building</listItem>

</list>

Then have them make up a word problem to go with each situation, and solve a few of these problems.

</description>

</activity>

- <activity>

- <description>

Ask students to think of a few "times as many" situations. Here are some ideas to get them started.

- <list>

stitem>One store has 5 times as many customers as another store. IistItem>One team has 3 times as many points as another team.

tistItem>One car costs 4 times as much as another car.

</list>

Then have them make up a word problem to go with each situation, and solve a few of these problems.

</description>

</activity>

<activity>

- <description>

Ask students to think of a few situations in which they might break a big group into smaller groups. Here are some ideas to get them started.

- <list>

tItem>Spread 100 seeds evenly along 10 rows in the garden. ttem>Split the class into 4 equal teams to play a game.</listItem>

</list>

Then have them make up a word problem to go with each situation, and solve a few of these problems.

</description>

</activity>

ctice>

<advanced> </strategies>

FIGURE 19 (page 1 of 2)

Diagram of a Sample Printed Report

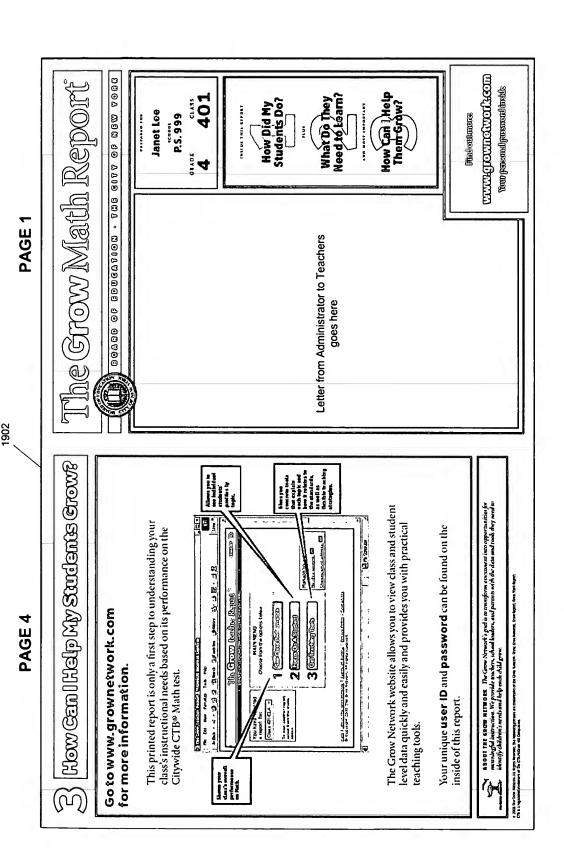


FIGURE 19 (page 2 of 2)

Diagram of a Sample Printed Report

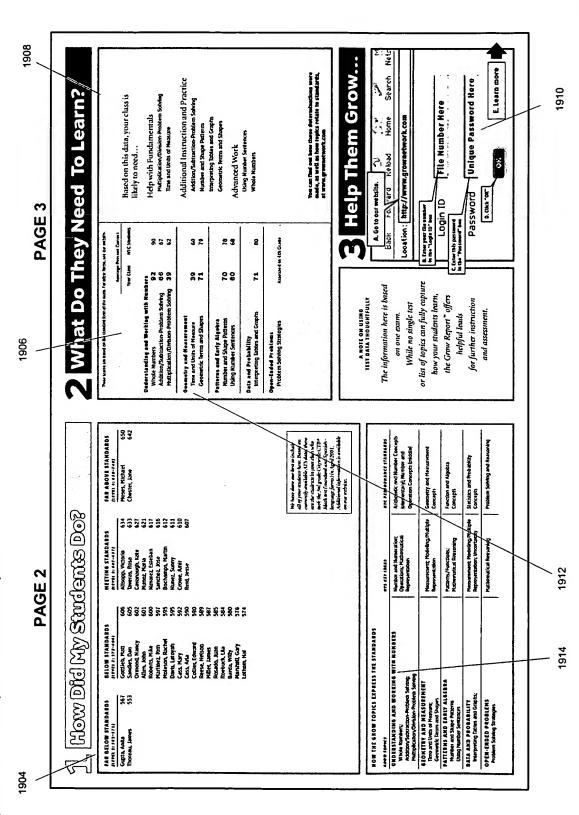
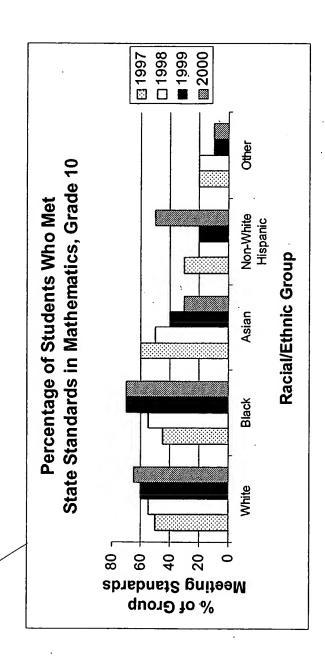


FIGURE 19A Diagram of a Complex Data Display in Print



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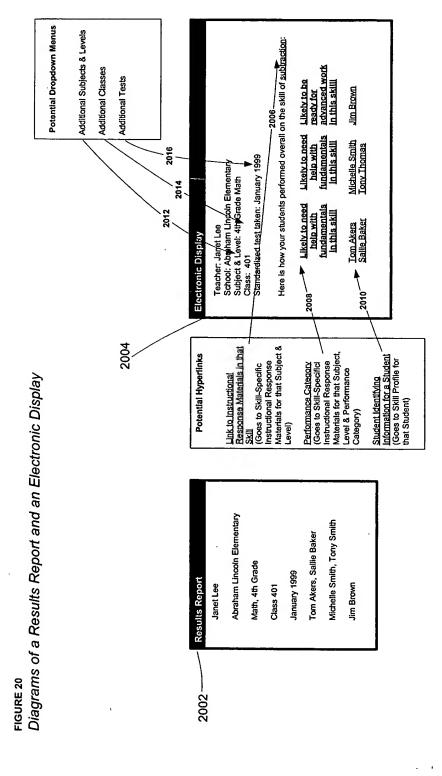
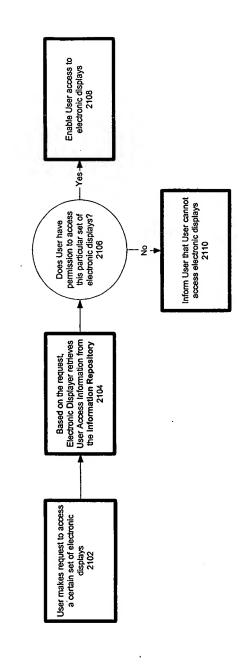
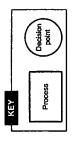
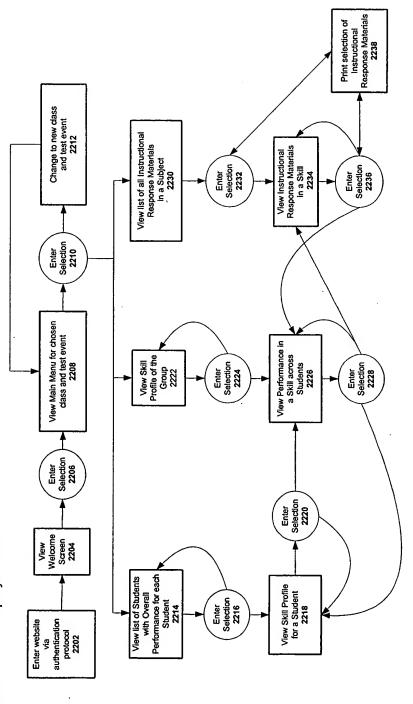


FIGURE 21
Flowchart of the User Authentication Process





Flowchart of a Display Website FIGURE 22



In addition to the linkages shown here, all "Enter Selection" decision points allow User to:

\* Return to Main Menu

\* Go to help and general information screens

\* Change user authentication information

\* Log out

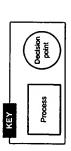


FIGURE 23

Diagram of a "Welcome" Display

Figure 24 Diagram of a "Main Menu" Display

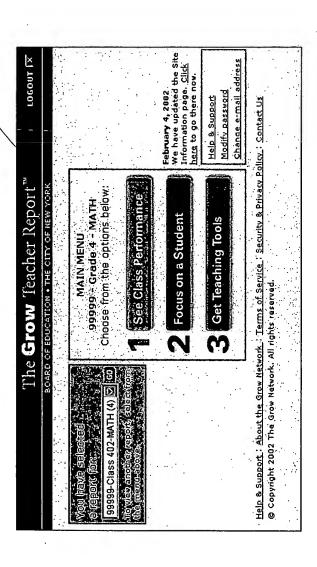
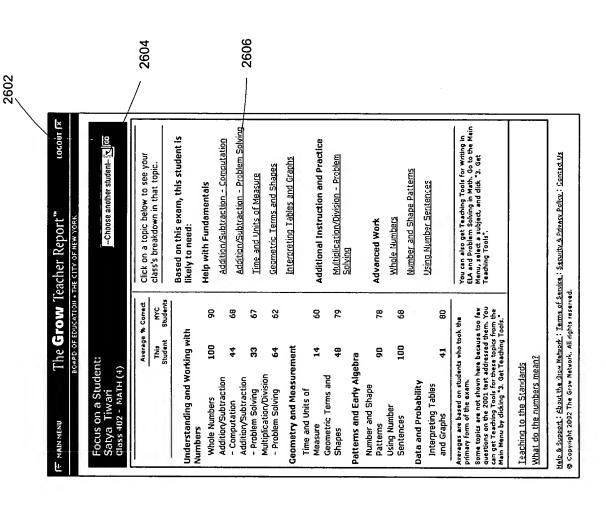


FIGURE 25 Diagram of a "Students' Overall Performance" Display

Focus on a Student	ent	, Co			<b>\</b> -
Class 402 - NATH (4)	( <del>+</del> )	989-	-See another class & subject-	) ect-   C   (G)	
Select a student to see his or her performance by topic.	ee his or her p	erformance by top	<b>lo:</b>		,
Far Below Standards Level One (385-571)	Below Standar Level Two (572:60)	Below Standards Meets Standards Standards Level The (572:606) Level Time (607-637) Level Four (382-74)	Far Above ands Standards (637) Level Four (6	ve ds (638-740)	<u></u>
bya 570	Svojels. Adam	Supple: Adam 603 Rezon.	Desoma.	644	
Tiongson. Armando 570:	Ibomas. Jeffrey	603 Walsh, Devun	616	/ :	/
	Santos. Patricia	Majarkey. Don	616		7 2506
		Rahman, Abdul 612	612		
		596 Williams. Lanva	612		
	Karamazov. Alex	S92 LL SEMUI			
	g	592			
	SI	000			
	Panoit: Helen	588			
		588			
	White Brandy	282			
	Double Mark	200			
		588			
	Jones, Heather 573	573			
What if students are missing from this list?	issing from this				

and given group being strong griften many griften grif

Diagram of a "Skill Profile of a Student" Display



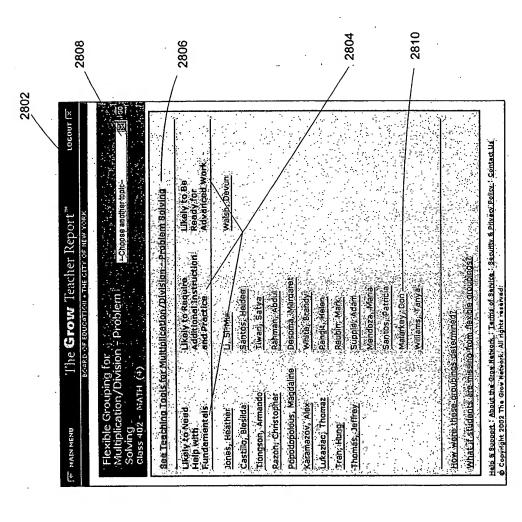
and grade of the control of the cont

FIGURE 27 Diagram of a "Skill Profile of a Group" Display

	OF EDUCATION •	BOARD OF EDUCATION . THE CITY OF NEW YORK	2704
Performance by Topic Class 402 - MATH (4)	j.	See another class & subject ি ্রিত্র	
Ave	Average % Correct	Click on a topic below to see your	
This Class	NYC Class Students	class's breakdown in that topic.	
Understanding and Working with Numbers	with .	Based on this exam, students in your class are likely to need:	
Whole Numbers 78	8 77	Help with Fundamentals	
Addition/Subtraction - Problem Solving 60	29 0	Addition/Subtraction - Problem Solving	2706
Multiplication/Division - Problem Solving 55	2 29	Additional Instruction and Practice	
Geometry and Measurement	<u> </u>	Whole Numbers	
Time and Units of 66	5 67	Multiplication/Division - Problem Solving	
Geometric Terms and Shapes 84	80	Time and Units of Measure	
Patterns and Early Algebra		Using Number Sentences	
Number and Shape Patterns 91	. 87	Advanced Work	
Using Number Sentences 88	98	Geometric Terms and Shapes	
Data and Probability		Number and Shape Patterns	
Interpreting Tables and Graphs	2 79	Interpreting Tables and Graphs	
Averages are based on students who took the primary form of the exam.  Some topics are not shown here because too fear questions on the 2001 test addressed them. You can get Teaching Tools for these topics from the Main Menu by dicking "3, Get Teaching Tools."	o took the cause too few ed them, You pics from the ing Tools."	You can also get Teaching Tools for Writing in ELA and Problem Solving in Math. Go to the Main Menu, select a subject, and dick "3. Get Teaching Tools".	
Teaching to the Standards What do the numbers mean?			

FIGURE 28

Diagram of a "Performance in a Skill across Students" Display



## Addition/Subtraction - Computation

1. Facts and Computation.

## Addition/Subtraction - Problem Solving

- 1. Addition Situations
- 2. Subtraction Situations
- 3. Situations With a Twist

## Fractions and Decimals

- 1. Understanding Fractions
- 2. Understanding Decimals
- 3. Ordering Fractions and Decimals

## Geometric Terms and Shapes

- 1. Identifying and Imagining Shapes
- 2. Shapes That Look Alike
- 3. Moving Shapes Around

## **Interpreting Tables and Graphs**

- 1. Interpreting Tables
- 2. Interpreting Graphs:
- 3. Creating Tables and Graphs

## Likely Outcomes

- 1. Talking about probability
- 2. Finding the probability
- 3. Counting the number of combinations

## Multiplication and Division - Problem Solving

- 1. Multiplication Situations
- 2. Division Situations
- 3. What To Do With Remainders
- 4. "Increasing Over Time"
- 5. Situations With a Twist

## Number and Shape Patterns

- 1. Exploring Sequences of Numbers
- 2. Exploring Sequences of Shapes
- 3. Exploring Geometric Patterns

## Problem-Solving Strategies

- 1. Making a Plan
- 2. Carrying out the Plan
- 3. Putting it into Words

## Time and Units of Measure

- 1. Basic Time and Money Skills
- 2. Clocks, Calendars, and Time
- 3. Units of Measure.
- 4: Making Actual Measurements

## Using Number Sentences

- 1. What is a Number Sentence?
- 2. Understanding Number Sentences
- 3. Number Sentences and Problem Solving

## Whole Numbers

- 1. Place Value
- 2. Ordering Numbers
- 3. Rounding Numbers

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## FIGURE 30 Diagram of an "Instructional Tools" Display

		BOARD OF EDUCATION . THE CITY OF NEW YORK
	Teaching Tools for Fractions and Decimals class 402 - NATH (4)	or cimals – Choose another topic– ্ৰিটিক ৭)
		ह्य printer-friendly version हो all tools for this tonic
	Contents	Totroduction
	Introduction	
	Essentials 1. Understanding	As students learn more and more about numbers, they recognize the need for numbers in between whole numbers. What if you want to share one cookie between two friends? How much should each person per? When we break orouns
	2. <u>Understanding</u>	or whole items into equal parts, we can create fractions and decimals. What part of the pizza has been eaten? What portion of the picture is shaded? Initially, students
	3. Ordering Fractions and Decimals	experiences with fractions and decimals center around exploring part of a whole. The ability to work with fractions and decimals will expand the range of problems that students can solve.
	Activities	The Essentials of Fractions and Decimals
	· Help with / fundamentals	1. Understanding Fractions
\	· Additional	2. Understanding Decimals
3004	practice Advanced work	3. Ordering Fractions and Decimals
	Recourse Problems	NEXT >
	· for Essential 1	
	· for Essential 2	
	for All Essentials	
	Resources	
	· Curriculum Resources	
	· Online Resources	
	. The Standards	

Figure 31 Diagram of Potential Hyperlinks in a Display Website

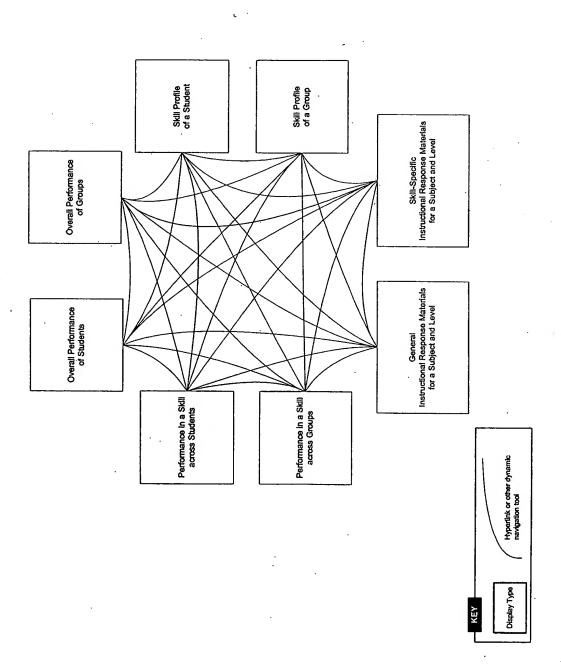


Diagram of a Potential Electronic Display of "Performance in a Skill across Groups" FIGURE 32

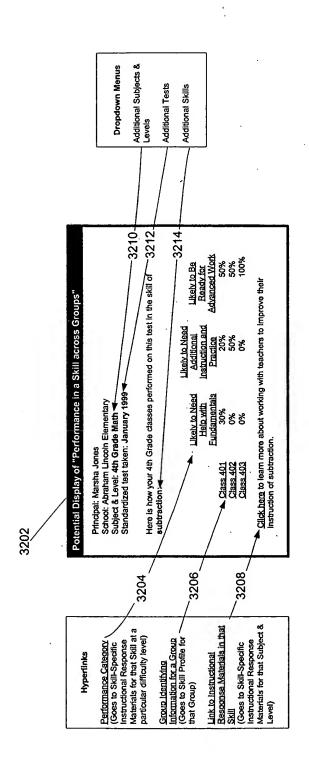


Figure 33 Flowchart of a Display Website with an Ongoing Assessment Component

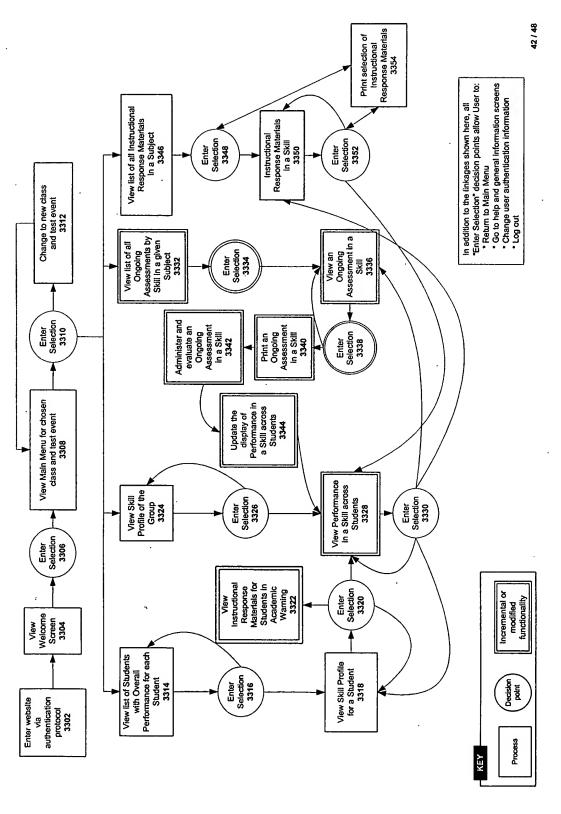
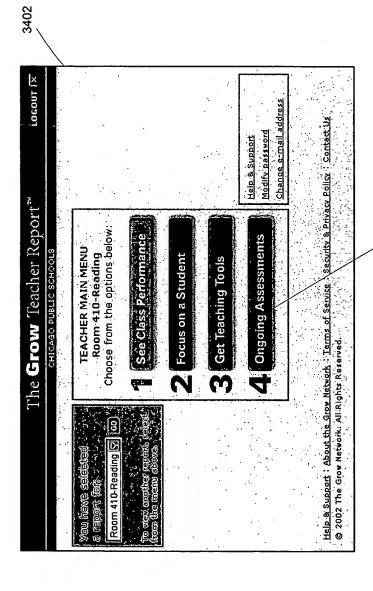


Diagram of a "Welcome" Display for a Website with an Ongoing Assessment Component FIGURE 34



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## The **Grow** Teacher Report™

CHICAGO PUBLIC SCHOOLS

## Ongoing Assessments: Reading

## Undate Flexible Groupings

## Contents

- · Author's Purpose
- · Cause and Effect
- Character
- Fact and Opinion
- · Genre and Literary Terms
- Main Idea and Theme
- · Predicting Outcomes
- · Sequence
- Setting
- · Words and Phrases in Context

## What are Ongoing Assessments?

The Grow Network's Ongoing Assessments in Reading are a good way to "take the pulse" of your class in important topic areas. You can give an Ongoing Assessment at the start of a unit, at the end of a unit, or whenever you want to find out quickly "where your class stands" in any given area.

When you finish grading an Ongoing Assessment for any given student in your class, you can update the student's Flexible Grouping information in your Grow Report Online.

## Format of Ongoing Assessments

Ongoing Assessments include sample questions, an answer sheet, and a teacher reference guide with scoring suggestions.

Each Ongoing Assessment in Reading is made up of two multiple choice and two short answer questions. These questions are chosen to test your students' ability to comprehend key details from a brief reading passage.

Ongoing Assessments are designed to be easy to grade. Scoring on the multiple choice questions is always 1 point for a correct answer and 0 points for an incorrect answer. Scoring on the short answer questions is 2 points for a correct response, 1 point for a partially correct response, and 0 points for an incorrect response.

Here is a suggested way to update the Flexible Groupings in your Grow Report Online, based on how your students perform on the Ongoing Assessment:

0-1 points Fundamentals column

2-4 points Practice column

5-6 points Advanced Work column

# 

FIGURE 36

Diagram of a "Performance in a Skill across Students" Display for a Website with an Ongoing Assessment Component

3602

See Teaching Tools for Character Ongoing Assessments in this topic Update Flexible Groupings in this topic Update Flexible Groupings in this topic Flexible Groupings for ISAT 2002 Likely to Need Help with Likely to Req Fundamentals Instruction a Allen, John Allsopp, Victor Barda, Willy Bochamps, Macass, Mary Crowe, Amir Davis, Latoyah Gottlieb, Matt Gupta, Anita Marshall, Gary Clatham, Hal Martinez, Tom Miller, James Moleson, Rach Nunez, Sunny Ormond, Nanc	Require Additional on and Practice fictoria s, Martin Jane mir Matt Gary Tom Rachel hael Nancy elson	Likely to Be Ready for Advanced Work  Cavanaugh, Kate Collier, Edward Munoz, Maria Reid, Jesse Taveras, Rosa
Rosado, Juan Sanchez, Jose Sandies, Dan	Roberts, Mike	
Thoreau, James		

# Diagram of an "Update Student Skill Assignments" Display for a Website with an Ongoing Assessment Component FIGURE 37

The <b>Grow</b> Teach		/ 3
pdate Flexible Groupings		/ 8
order to move a student to a new category, ck the circle under the appropriate column for ich student. Then click "Submit" at the bottom the page. To start over with the previous flues, click "Reset."	Original position     F = Help With Fundamentals     P = Additional Instruction and Practice     A = Advanced Work	
rurce of Information Ongoing Assessments	Beintzerfriendly version of score sheet	9, 6
Allen, John	F P A	
Allsopp, Victoria	0 @ C	
Barda, Willy	€ c c	
Bochamps, Martin	ତ 🕞 ୦	
Cass, Arla	6 c c	
Cass, Mary		
Cavanaugh, Kate		
Chester, Jane	୍ଜି ଦ	
Collier, Edward		
Crowe, Amir	, e c	
Davis, Latoyah	6 c c	
Gottlieb, Matt		
Gupta, Anita		
Latham, Hal	e c c	
Marshall, Gary	୦ 🕞 ୦	
Martinez, Tom	o	
Miller, James		
Moleson, Rachel	o e c	
Moss, Michael	0 6 C	
Munoz, Maria	0 C 6	
Navarez, Esteban	( C C	W Z
Yunez, Sunny		
Drmond, Nancy	0 E C	
Reese, Nelson	c	
Moleson, Rachel	0 161 0	
Moss, Michael	े 🗐 ०	
Munoz, Maria	0 C E	
Navarez, Esteban	<b>◎</b> c c	
lunez, Sunny	<u> </u>	
Ormond, Nancy	୍ ଜ ୍	
Reese, Nelson	c 🗐 c	
Reid, Jesse	. c	
Roberts, Mike	0 @ C	
Roebuck, Lila	@ c c	
Rosado, Juan	· ·	
Sanchez, Jose		
Sandies, Dan	ि ० ०	
Faveras, Rosa	6660 (	
Thoreau, James	e c c	
Submit Reset		17

## Character

The Grow Network · Ongoing Assessment

Read the following passage. Then answer the questions below.

Michelle wanted to be the best shot on her basketball team. Every morning she went to school early and spent an hour practicing in the gym by herself. In the evening, she would practice all alone at the playground near her houss. She loved the swish sound of a perfect shot, and she was improving every day. But she still wasn't as good as her best fittend lise, the team's star forward. Sometimes Lisa teased her for trying so hard, but Michelle would just smile and keep practicing.

- 1. Which word best describes Michelle?
  - a) jealous b) dedicated

  - c) lonely d) frustrated
- 2. At the end of the passage, why does Michelle smile?

  - a) Lisa has just told Michelle a joke.
    b) Michelle likes being alone.
    c) Michelle is about to make a successful shot.
    d) Michelle is confident that she's doing the right thing.
- 3. Michelle and Lisa are both characters in this passage. List three (3) things the passage tells us about Lisa.
- 4. In your own words, describe what problem Michelle faces. What does she do to overcome It?

**SCORING GUIDE** 

- 1. The correct answer is (b), dedicated.
  - O Points = incorrect or no answer 1 Point = correct answer
- 2. The correct answer is (d), Michelle is confident that she's doing the right thing.
  - O Points = incorrect or no enswer 1 Point = correct enswer
- 3. For sample responses, see Teacher Reference Guide below.
  - 0 Points = all incorrect or no answer 1 Point = one or two things about Lisa 2 Points = three things about Lisa
- 4. For sample responses, see Teacher Reference Guide below

  - O Points = no answer or both parts of question incorrect
    1 Point = one part of question correct
    2 Points = both parts of question correct

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Here is a suggested way to update the Flexible Groupings in your Grow Report Online, based on a student's total score on the Ongoing Assessment:

- 0-1 points Fundamentals column 2-4 points Practice column 5-6 points Advanced Work column

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FIGURE 38

Diagram of an "Ongoing Assessment" Display for a Website

with an Ongoing Assessment Component

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FIGURE 39

Diagram of a "Focus on a Student" Display for a Website
with an Ongoing Assessment Component

F MAIN MENU	The G	FOW T	The Grow Teacher Report" Locourix	3902
Focus on a Student: Anita Gupta Room 410 - Reading	Jt:		Choose another student – ুল ( বিত।	
This student scored iresources to identify	in the <b>Ac</b> Anita's c	cademic W difficulties,	This student scored in the Academic Warning level in Reading. For additional resources to identify Anita's difficulties, visit " <u>Primary Assessment Togls</u> ".	
	Average	Average % Correct	Click on a topic below to see your	
	This Student	CPS Students	class's breakdown in that topic.	3904
Tools and Techniques			Based on this information, Anita Gupta is likely to need	
Stated Information	91	83	Help with Fundamentals	
Words and Phrases	89	84	Main Idea and Theme	
Genre and Literary Terms	91	87	Character	
Bringing Texts to Life			Fact and Opinion	
Sequence	29	62	Author's Purpose	
Setting	81	75	Setting	
Character	45	54	Cause and Effect	
Evaluating Evidence	į	;	Predicting Outcomes	
Cause and Effect	23	75	Additional Instruction and Practice	
Overall Meaning			Sednence	
Main Idea and Theme	4	25	Stated Information	
Author's Purpose	47	49	Advanced Work	
Predicting Outcomes	23	63	Genre and Literary Terms	
			Words and Phrases	